

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1. to 8. (Canceled)

9. (Currently Amended) A parenteral nutrition emulsion composition comprising a structured triglyceride, the structured triglyceride comprising a glycerol backbone having three fatty acid residues esterified thereto, wherein at least one fatty acid residue is selected from the group consisting of C₆-C₁₂ fatty acids and active derivatives thereof, and at least one fatty acid residue is selected from the group consisting of C₁₄-C₁₈ fatty acids, C₂₀-C₂₂ fatty acids, and active derivatives thereof, with the proviso that a C₁₈-C₂₂ ω-3 fatty acid residue is not present on the same glycerol backbone together with gamma linolenic acid or dihomogamma linolenic acid, wherein the emulsion has a droplet size of less than about 1 μm.

Claims 10 and 11. (Canceled)

12. (Original) The parenteral nutrition emulsion composition according to claim 9, wherein the C₁₄-C₁₈ fatty acids and the C₂₀-C₂₂ fatty acids are selected from the group consisting of ω-3, ω-6, ω-9 fatty acids, and any combination thereof.

13. (Original) The parenteral nutrition emulsion composition according to claim 9, comprising from about 9 to about 90% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids.

14. (Original) The parenteral nutrition emulsion composition according to claim 9, comprising from about 40 to about 50% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids.

15. (Original) The parenteral nutrition emulsion composition according to claim 9, comprising from about 9 to about 90% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids.

16. (Original) The parenteral nutrition emulsion composition according to claim 9, comprising from about 35 to about 55% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids.

17. (Original) The parenteral nutrition emulsion composition according to claim 9, comprising from about 1 to about 10% by weight C₂₀-C₂₂ fatty acids based on the weight of total fatty acids.

18. (Original) The parenteral nutrition emulsion composition according to claim 9, comprising from about 4.5 to about 5.5% by weight C₂₀-C₂₂ fatty acids based on the weight of total fatty acids.

19. (Original) The parenteral nutrition emulsion composition according to claim 9, wherein the ω -6 fatty acids and the ω -3 fatty acids are in a ratio of about 7:1 to about 1:1.

20. (Original) The parenteral nutrition emulsion composition according to claim 19, wherein the ω -6 fatty acids and the ω -3 fatty acids are in a ratio of about 2:1 to about 1.5:1.

21. (Original) The parenteral nutrition emulsion composition according to claim 9, wherein the structured triglyceride constitutes from about 10 to about 40% (w/v) of the composition.

22. (Original) The parenteral nutrition emulsion composition according to claim 9, wherein the structured triglyceride constitutes from about 20 to about 25% (w/v) of the composition.

Claim 23. (Canceled).

24. (Original) The parenteral nutrition emulsion composition according to claim 9, wherein a droplet size of said emulsion is lower than about 0.22 μm .

25. (Original) The parenteral nutrition emulsion composition according to claim 9, further comprising tocopherol.

26. (Original) The parenteral nutrition emulsion according to claim 25, wherein the tocopherol is alpha tocopherol.

27. (Original) The parenteral nutrition emulsion according to claim 9, further comprising an emulsifier.

28. (Original) The parenteral nutrition emulsion according to claim 9, further comprising at least one component selected from the group consisting of surfactants, carbohydrates, vitamins, amino acids, trace minerals, osmolality modifiers and water.

29. (Currently Amended) The parenteral nutrition composition according to claim 9 comprising:

(a) about 20% (w/v) structured triglycerides comprising:

about 40-50% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids, wherein the C₆-C₁₂ fatty acids comprise 0-5% caproic acid, 20-30% caprylic acid, 10-30% capric acid, and 0-5% lauric acid by weight based on the weight of total fatty acids;

about 35-55% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids, wherein the C₁₄-C₁₈ fatty acids comprise 0-5% myristic acid, 5-30% palmitic acid, 0-5% palmitoleic acid, 0-5% stearic acid, 10-30% oleic acid, 10-30% linoleic acid, and 5-15% alpha linolenic acid by weight based on the weight of total fatty acids; and

about 1-10% C₂₀-C₂₂ by weight fatty acids based on the weight of total fatty acids, wherein the C₂₀-C₂₂ fatty acids comprise 1-5% AA, 0-5% EPA, and 1-5% DHA by weight based on the weight of total fatty acids, wherein the ratio of ω-6 to ω-3 fatty acids is about 1:1 to about 2:1;

(b) 1.2% (w/v) phospholipids;

(c) 1.8-2.0 mg/1 g of fatty acids alpha tocopherol;

(d) 0-25 g/L glycerin; and

(e) water.

30. (Original) The parenteral nutrition emulsion composition according to claim 29 comprising:

(a) about 20% (w/v) structured triglycerides comprising:

about 45% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids, wherein the C₆-C₁₂ fatty acids comprise 2.5% caproic acid, 30% caprylic acid, 10% capric acid, and 2.5% lauric acid by weight based on the weight of total fatty acids;

about 50% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids, wherein the C₁₄-C₁₈ fatty acids comprise 10% palmitic acid, 2.5% stearic acid, 15% oleic acid, 16% linoleic acid, and 7% alpha linolenic acid by weight based on the weight of total fatty acids; and

about 5% by weight C₂₀-C₂₂ fatty acids based on the weight of total fatty acids, wherein the C₂₀-C₂₂ fatty acids comprise 1.5% AA, 1.5% EPA, and 1.5% DHA by weight based on the weight of total fatty acids, wherein the ratio of ω-6 to ω-3 fatty acids is 1.75;

- (b) about 1.2% (w/v) phospholipids;
- (c) about 1.8 mg/1 g of fatty acids alpha tocopherol;
- (d) about 10-25 g/L glycerin; and
- (e) water.

31. (Currently Amended) A parenteral nutrition emulsion composition comprising a structured triglyceride, the structured triglyceride comprising a glycerol backbone having three fatty acid residues esterified thereto, wherein at least one fatty acid residue is selected from the group consisting of C₆-C₁₂ fatty acids and active derivatives thereof in the internal position of the triglyceride backbone, and at least one fatty acid residue is selected from the group consisting of C₁₄-C₁₈ fatty acids, C₂₀-C₂₂ fatty acids, and active derivatives thereof in an external position of the triglyceride backbone, wherein the emulsion has a droplet size of less than about 1 μm.

Claims 32 and 33. (Canceled)

34. (Original) The parenteral nutrition emulsion composition according to claim 31, wherein the C₁₄-C₁₈ fatty acids and the C₂₀-C₂₂ fatty acids are selected from the group consisting of ω-3, ω-6, ω-9 fatty acids, and any combination thereof.

35. (Original) The parenteral nutrition emulsion composition according to claim 31, comprising from about 9 to about 90% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids.

36. (Original) The parenteral nutrition emulsion composition according to claim 31, comprising from about 40 to about 50% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids.

37. (Original) The parenteral nutrition emulsion composition according to claim 31, comprising from about 9% to about 90% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids.

38. (Original) The parenteral nutrition emulsion composition according to claim 31, comprising from about 35% to about 55% by weight C₁₄-C₁₈ fatty acids based on the weight total fatty acids.

39. (Original) The parenteral nutrition emulsion composition according to claim 31, comprising from about 1% to about 10% by weight C₂₀-C₂₂ fatty acids based on the weight of total fatty acids.

40. (Original) The parenteral nutrition emulsion composition according to claim 31, comprising from about 4.5% to about 5.5% by weight C₂₀-C₂₂ fatty acids based on the weight of total fatty acids.

41. (Original) The parenteral nutrition emulsion composition according to claim 31, wherein the ω -6 fatty acids and the ω -3 fatty acids are in a ratio of about 7:1 to about 1:1.

42. (Original) The parenteral nutrition emulsion composition according to claim 41, wherein the ω -6 fatty acids and the ω -3 fatty acids are in a ratio of about 2:1 to about 1.5:1.

43. (Original) The parenteral nutrition emulsion composition according to claim 31, wherein the structured triglyceride constitutes from about 10 to about 40% (w/v) of the composition.

44. (Original) The parenteral nutrition emulsion composition according to claim 31, wherein the structured triglyceride constitutes from about 20 to about 25% (w/v) of the composition.

Claim 45. (Canceled).

46. (Original) The parenteral nutrition emulsion composition according to claim 31, wherein a droplet size of said emulsion is lower than about 0.22 μ m.

47. (Original) The parenteral nutrition emulsion composition according to claim 31, further comprising tocopherol.

48. (Currently Amended) The parenteral nutrition emulsion composition according to claim 47, wherein the tocopherol is alpha tocopherol.

49. (Currently Amended) The parenteral nutrition emulsion composition according to claim 31, further comprising an emulsifier.

50. (Currently Amended) The parenteral nutrition emulsion composition according to claim 31, further comprising at least one component selected from the group consisting of surfactants, carbohydrates, vitamins, amino acids, trace minerals, osmolality modifiers and water.

51. (Currently amended) The parenteral nutrition emulsion composition according to claim 31 comprising:

(a) about 20% (w/v) structured triglycerides comprising:

about 40-50% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids, wherein the C₆-C₁₂ fatty acids comprise 0-5% caproic acid, 20-30% caprylic acid, 10-30% capric acid, and 0-5% lauric acid by weight based on the weight of total fatty acids;

about 35-55% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids, wherein the C₁₄-C₁₈ fatty acids comprise 0-5% myristic acid, 5-30% palmitic acid, 0-5% palmitoleic acid, 0-5% stearic acid, 10-30% oleic acid, 10-30% linoleic acid, and 5-15% alpha linolenic acid by weight based on the weight of total fatty acids; and

about 1-10% C₂₀-C₂₂ by weight fatty acids based on the weight of total fatty acids, wherein the C₂₀-C₂₂ fatty acids comprise 1-5% AA, 0-5% EPA, and 1-5% DHA by weight based on the weight of total fatty acids, wherein the ratio of ω-6 to ω-3 fatty acids is 1:1-2:1;

(b) 1.2% (w/v) phospholipids;

(c) 1.8-2.0 mg/1 g of fatty acids alpha tocopherol;

(d) 0-25 g/L glycerin; and

(e) water.

52. (Original) The parenteral nutrition emulsion composition according to claim 51 comprising:

(a) about 20% (w/v) structured triglycerides comprising:

about 45% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids, wherein the C₆-C₁₂ fatty acids comprise 2.5% caproic acid, 30% caprylic acid, 10% capric acid, and 2.5% lauric acid by weight based on the weight of total fatty acids;

about 50% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids, wherein the C₁₄-C₁₈ fatty acids comprise 10% palmitic acid, 2.5% stearic acid, 15% oleic acid, 16% linoleic acid, and 7% alpha linolenic acid by weight based on the weight of total fatty acids; and

about 5% by weight C₂₀-C₂₂ fatty acids based on the weight of total fatty acids, wherein the C₂₀-C₂₂ fatty acids comprise 1.5%AA, 1.5% EPA, and 1.5% DHA by weight based on the weight of total fatty acids, wherein the ratio of ω -6 to ω -3 fatty acids is 1.75;

(b) about 1.2% (w/v) phospholipids;

(c) about 1.8 mg/1 g of fatty acids alpha tocopherol;

(d) about 10-25 g/L glycerin; and

(e) water.

Claims 53-60. (Cancelled)

61. (Original) A method of providing nutrition to a subject in need thereof comprising parenterally administering to the subject a parenteral nutrition emulsion composition according to claim 31.

Claim 62. (Canceled).

63. (Original) The method according to claim 61, wherein the subject is an AIDS patient.

64. (New) The parenteral nutrition emulsion composition according to claim 51 comprising:

(a) about 20% (w/v) structured triglycerides comprising:

about 45% by weight C₆-C₁₂ fatty acids based on the weight of total fatty acids, wherein the C₆-C₁₂ fatty acids comprise about 25% caprylic acid and 20% capric acid by weight based on the weight of total fatty acids;

about 45% by weight C₁₄-C₁₈ fatty acids based on the weight of total fatty acids, wherein the C₁₄-C₁₈ fatty acids comprise about 10% palmitic acid, 15% oleic acid, 10% linoleic acid, and 10% alpha linolenic acid by weight based on the weight of total fatty acids; and

about 10% by weight C₂₀-C₂₂ fatty acids based on the weight of total fatty acids, wherein the C₂₀-C₂₂ fatty acids comprise 3%AA, 1.5% EPA, and 3% DHA by weight based on the weight of total fatty acids, wherein the ratio of ω-6 to ω-3 fatty acids is 1;

(b) about 1.2% (w/v) phospholipids;

(c) about 1.8 mg/1 g of fatty acids alpha tocopherol;

(d) about 10-25 g/L glycerin; and

(e) water.

65. (New) The method according to claim 61, wherein the subject is a preterm or term infant.